

Cisco VIC-4FXS/DID Analog Voice Interface Card for the Cisco ICS 7750

The Cisco ICS 7750 Integrated Communications System brings the benefits of converged IP services to midmarket businesses and enterprise branch offices. The Cisco ICS 7750 is a versatile IP telephony and services solution that helps businesses harness the power of the Internet through converged applications, enabling them to anticipate and respond to customer needs more efficiently. Call processing, voice applications, and multiservice IP routing are integrated within the system chassis to deliver true convergence while enhancing system manageability. The modular system architecture enables expansion of call processing, routing capacity, and IP services to deliver high availability and scalability. The Cisco ICS 7750 gives customers the flexibility to choose the optimal configuration for their business environment, and allows them to increase profitability through improved customer interactions.

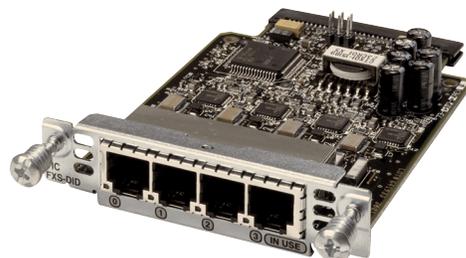
To keep up with the rapidly changing business environment in the Internet economy, businesses need cost-effective yet scalable communication network solutions that integrate seamlessly with traditional voice networks as well as the Internet. The Cisco Multiservice Route Processor (MRP) for the Cisco ICS 7750 is flexible in that it can provide the connection to voice networks or to the Internet based on the type of interface the customer requires. The result of combining the MRP with the

high-density analog voice interface card (VIC) is a cost-effective yet scalable analog voice service solution that meets the demanding needs of today's customer.

Product Description: Cisco 4-Port FXS/DID VIC

The high-density Cisco 4-Port FXS/DID VIC can support up to four foreign-exchange-station (FXS) ports for directly connecting phones or fax machines, or it can be used to connect up to four direct-inward-dial (DID) analog trunks, providing customers the flexibility they need for their unique business environment (refer to Figure 1). Each port on the Cisco 4-Port FXS/DID VIC is selectable for use in either FXS or DID mode. Because the Cisco 4-Port FXS/DID VIC is the same size as the

Figure 1
Cisco 4-Port FXS/DID
VIC with Caller ID
Support





existing 2-port voice/WAN interface cards (VWICs), it can slide into either one of the two VWIC slots located on the MRP card. Thus, when installing two Cisco VIC-FXS/DID cards within a single MRP, any combination of up to eight FXS or DID ports can be supported.

DSP Requirements for the Cisco 4-Port FXS/DID VIC

Within the Cisco ICS 7750 System, the medium-complexity analog digital-signal-processor (DSP) image is the factory default for supporting the Cisco 4-Port FXS/DID VIC. This DSP image provides support for four voice channels (of G.711, G.729, or G.726) for each DSP chip. For example, the Cisco PVDM-4 DSP Module has one DSP chip and is, therefore, capable of supporting four voice channels on the Cisco 4-Port FXS/DID VIC. The medium-complexity analog DSP software image supports four channels of G.711, G.729, G.726, fax relay, or modem or fax pass-through, and it provides support for 32-msec echo cancellation per DSP chip.

The Cisco 4-Port FXS/DID VIC also supports the high-complexity analog DSP software image. This DSP image provides support for two voice channels (of G.711, G.729, G.723.1, or G.726) for each DSP chip. Therefore, a Cisco PVDM-8 Module (two DSP chips) is required to support four voice channels on the Cisco 4-Port FXS/DID VIC. The high-complexity analog DSP image supports two channels of G.711, G.729, G.726, G.723.1, fax relay, or modem or fax pass-through, and it provides support for 32-msec echo cancellation per DSP chip.

Service and Support Solutions

Cisco Service and Support Solutions are designed for one purpose—to ensure customer success by delivering a suite of proactive services. Delivered directly or through an ecosystem of best-of-breed service partners, Cisco Service and Support offerings provide presales network audit planning, design consulting, network implementation, operational support, and network optimization.

Cisco Advanced Services enable you to plan, design, build, implement, and optimize your solution for rapid deployment and increased system stability and availability.

Cisco Technical Support Services provide the maintenance and troubleshooting you need to keep your solution operational.

By purchasing service and support with the Cisco ICS 7750, customers can confidently deploy a converged network architecture using Cisco experience, expertise, and resources.



Technical Specifications and Benefits

Table 1 gives specifications and benefits and Table 2 gives Electro Magnetic Compatibility (EMC) standards for the Cisco 4-Port FXS/DID VIC.

Table 1 Specifications and Benefits of Cisco VIC-4FXS/DID

Cisco 4-Port FXS/DID VIC	4-port FXS or DID voice/fax interface card with caller ID support (DID for United States, Canada, and other countries)
Interface type	FXS and DID trunk
Supported platforms	Cisco ICS 7750 and Cisco 1751 and 1760 series routers
Cisco CallManager requirement	Cisco CallManager 3.1(2c)
Cisco ICS System Manager requirement	Cisco ICS System Manager Release 2.2
First Cisco IOS® Release for Cisco ICS 7750	12.2(4)XL3
First Cisco IOS® Release for Cisco 1751 and 1760 series routers	12.2(8)YN
Safety	UL 1950, UL 60950 (United States), CSA C22.2 950, CSA C22.2 No. 60950-00 (Canada), EN 60950 (Europe), AS 3260 (Australia), TS 001 (Australia)
FXS homologation	United States (TIA/EIA-1S-968), Canada (CS-03 I)
DID homologation	United States (TIA/EIA-1S-968), Australia (ACIF S002/S003)
EMC	Refer to Table 2
Spare	Part number VIC-4FXS/DID=
Signaling modes	FXS—Loop Start DID—Wink, Immediate, and Delay Dial
Address signaling formats	In-band dual tone multifrequency (DTMF) Out-of-band pulse (10/20 pps)
Tone disconnect supervision	DID—Power denial (caller party control, far-end disconnect)
Ringling frequencies	20 Hz, 50 Hz
Physical connector	RJ-11
Number of connectors	4
Mean time between failure (MTBF)	2,131,306 hours

Table 2 EMC for Cisco 4-Port FXS/DID VIC

FCC Part 15 Class B	Emissions
EN55022: 1998, Class B	Emissions
EN61000-3-2: 1995	Harmonics
EN61000-3-3: 1995	Flicker
EN50082-1: 1997	Immunity
EN55024: 1998	Immunity
EN61000-3-2	Harmonics
EN61000-3-3	Flicker
EN61000-4-2	ESD
EN61000-4-3	RF fields
EN61000-4-4	EFT
EN61000-4-5	Surge
EN61000-4-6	Conducted RF
EN61000-4-11	Voltage dips/sags/interruptions



Corporate Headquarters
 Cisco Systems, Inc.
 170 West Tasman Drive
 San Jose, CA 95134-1706
 USA
www.cisco.com
 Tel: 408 526-4000
 800 553-NETS (6387)
 Fax: 408 526-4100

European Headquarters
 Cisco Systems Europe
 11 Rue Camille Desmoulins
 92782 Issy-les-Moulineaux
 Cedex 9
 France
www-europe.cisco.com
 Tel: 33 1 58 04 60 00
 Fax: 33 1 58 04 61 00

Americas Headquarters
 Cisco Systems, Inc.
 170 West Tasman Drive
 San Jose, CA 95134-1706
 USA
www.cisco.com
 Tel: 408 526-7660
 Fax: 408 527-0883

Asia Pacific Headquarters
 Cisco Systems, Inc.
 Capital Tower
 168 Robinson Road
 #22-01 to #29-01
 Singapore 068912
www.cisco.com
 Tel: +65 317 7777
 Fax: +65 317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the

Cisco Web site at www.cisco.com/go/offices

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia
 Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland
 Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland
 Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden
 Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

All contents are Copyright © 1992-2002, Cisco Systems, Inc. All rights reserved. Cisco, Cisco IOS, Cisco Systems, and the Cisco Systems logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries.

All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company.
 (0203R) LW3363 7/02 ms12/02